



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,769	10/31/2003	Jerry Rolia	200300266-1	1824
22879 7590 01/23/2009 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER				
ZHE, MENG YAO				
ART UNIT		PAPER NUMBER		
2195				
NOTIFICATION DATE		DELIVERY MODE		
01/23/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM

mkraft@hp.com

ipa.mail@hp.com

Office Action Summary

Application No.

10/698,769

Applicant(s)

ROLIA ET AL.

Examiner

MENGYAO ZHE

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-27 are presented for examination.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1-13 recite a method comprising steps that may be performed mentally and/or manually by a human being. Thus, the method neither explicitly recites another statutory class of invention (i.e., a machine, a manufacture or a composition of matter) nor inherently requires the use of a particular machine or apparatus. Accordingly, the recited invention is nonstatutory subject matter.

Claim 27 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional

descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*. *In re Warmerdam*, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1760 (claim to a data structure *per se* held nonstatutory).

Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. *See, e.g., In re Warmerdam*, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035.

Claim 27 recites an “apparatus” comprising a series of means that can be reasonably interpreted as software. Accordingly, claim 27 appears to merely set forth functional descriptive material per se, which is nonstatutory.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 14, 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Clohessy et al., Patent No. 7,334,228 (hereafter Clohessy).

5. As per claim 1, Clohessy teaches a method of governing access to resources in a computing utility facility, comprising:

receiving a demand profile associated with an application that identifies the resources required from a pool of resources during one or more demand cycles (Column 5, lines 25-30);

admitting an application to the computing utility facility if resources required for the application can be provided from the pool of resources in accordance with the demand profile and associated one or more demand cycles (Fig 4, unit 10, 114; Column 6, lines 2-15);

assigning available resources from the pool of resources in response to a request from the applications admitted to the computing utility facility (Column 13, lines 64-67; Column 14, lines 40-45).

6. Claims 1-2, 5-6, 8-15, 18-19, 21-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Brelin, Patent No. 6,647,448 (hereafter Brelin).

7. As per claims 1, 14, 27 Brelin teaches a method of governing access to resources in a computing utility facility, comprising:

receiving a demand profile associated with an application that identifies the resources required from a pool of resources during one or more demand cycles (Column 6, lines 20-25);

admitting an application to the computing utility facility if resources required for the application can be provided from the pool of resources in accordance with the demand profile and associated one or more demand cycles (Column 9, lines 50-55);

assigning available resources from the pool of resources in response to a request from the applications admitted to the computing utility facility (Fig 9, unit 95).

8. As per claims 2, 15 Brelin teaches wherein admitting the application further comprises: unfolding the one or more demand cycles from the demand profile

associated with the application into time slots requiring resources from the pool of resources (Column 6, line 65-Column 7, line 7; Column 7, lines 8-18); comparing the time slots requiring resources with a staging calendar of time slots representing availability of resources in the pool of resources (Column 6, lines 5-10; Column 8, lines 5-20; Column 9, lines 53-56); and converting time slots from the staging calendar to a permanent calendar when comparison indicates the time slots requiring resources from the demand profile are available for assignment (Column 9, lines 53-56).

9. As per claims 5, 18, Brelin teaches wherein unfolding the one or more demand cycles includes a demand cycle describing a demand for resources from a resource pool during weekdays and another demand cycle describing another demand for resources during weekends (Column 7, lines 20-32).

10. As per claims 6, 19, Brelin teaches wherein converting time slots from the staging calendar to a permanent calendar comprises: copying the time slots from the staging calendar to the permanent calendar; and preallocating the requested resources from the pool of resources according to the permanent calendar schedule (Column 8, lines 10-20, lines 25-40: each most recently updated calendar corresponds to the permanent calendar; Fig 9, unit 95).

11. As per claims 8, 21, Brelin teaches policing requests for resources from the admitted applications to determine if the resources being requested are within an acceptable range (Column 10, lines 5-10, lines 36-50).

12. As per claims 9, 22, Brelin teaches intercepting a request for resources from an application admitted to access a pool of resources (Fig 9, unit 91); determining if resource request is within an acceptable range of demands based upon the demand profile of the application (Fig 9, unit 93); indicating an application is not entitled to the request when the determination indicates the request is outside the acceptable range of demands (Fig 9, unit 90); and indicating an application is entitled to the request when the determination indicates an application is within the acceptable range of demands (Fig 9, unit 97).

13. As per claims 10, 23, Brelin teaches arbitrating the allocation of limited resources between two or more applications entitled to receive the requested resources (Column 8, lines 60-67).

14. As per claims 11, 24, Brelin teaches wherein the arbitration comprises: detecting a conflict in providing requested resources to two or more admitted applications entitled to receive the requested resources; determining if at least one application can forego

receiving the requested resources causing the conflict for a predetermined period of time; instructing the at least one application to forego receipt of the requested resources for a period of time in accordance with the determination; allocating resources to the remaining admitted applications entitled to receive the requested resources in accordance with a priority scheme (Column 8, lines 60-67).

15. As per claims 12, 25, Brelin teaches wherein the priority scheme includes selecting admitted applications to receive the requested resources on a first-come-first-serve basis (Column 8, lines 60-67).

16. As per claims 13, 26, Brelin teaches wherein the priority scheme includes selecting admitted applications to receive the requested resources in according to economic and class of services factors (Column 7, lines 15-32; Column 9, lines 50-55).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 3-4, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brelin, Patent No. 6,647,448 (hereafter Brelin) in view of Funke et al., Patent No. 5,845,201 (hereafter Funke).

19. As per claims 3, 16, Brelin teaches wherein unfolding the one or more demand cycles includes a caveat time cycle based upon an event that occurs over a long-period of time (Column 7, lines 20-35).

Brelin does not specifically teach selecting from a set including special events, holidays, seasonal occurrences and emergencies.

However, Funke teaches a set including special events, holidays, seasonal occurrences and emergencies for the purpose of establishing timely performances (Column 32, lines 1-17).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings Brelin with a set including special events, holidays, seasonal occurrences and emergencies, as taught by Funke, because it establishes timely performances.

20. As per claims 4, 17 Brelin teaches wherein the caveat time cycle is based upon knowing when at least one particular event is going to occur in the future (Column 7, lines 20-32).

Claims 7, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brelin, Patent No. 6,647,448 (hereafter Brelin) in view of Contestabile, Patent No. 7,123,141 (hereafter Contestabile).

21. As per claims 7, 20, Brelin does not specifically teach wherein converting time slots from the staging calendar to a permanent calendar comprises: indicating the time slots in the staging calendar associated with the requested resources are permanent and not for staging purposes; and pre-allocating the requested resources from the pool of resources according to the permanent calendar schedule.

However, Contestabile teaches converting temporary calendars into permanent calendars for the purpose of making changes permanent (Column 18, line 66-Column 19, line 18).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Brelin with converting temporary calendars into permanent calendars for the purpose of making changes permanent, as taught by Contestabile, such that it is possible to indicate the time slots in the staging calendar associated with the requested resources are permanent and not for staging purposes; and pre-allocating the requested resources from the pool of resources according to the permanent calendar schedule, because it allows to one to make permanent changes to the calendar.

Response to Arguments

22. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MENGYAO ZHE whose telephone number is (571)272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/
Primary Examiner, Art Unit 2194